PATENTS
112055-0073U
17732-67070.00

REMARKS

In the Office Action dated 05/03/2005, the Examiner rejected claims 1-7, 9-16 and 18 under 35 U.S.C. 103(a) as being unpatentable over Talbot et al. (USP 6,448,815) in view of Mitsuo (JP 07-307661).

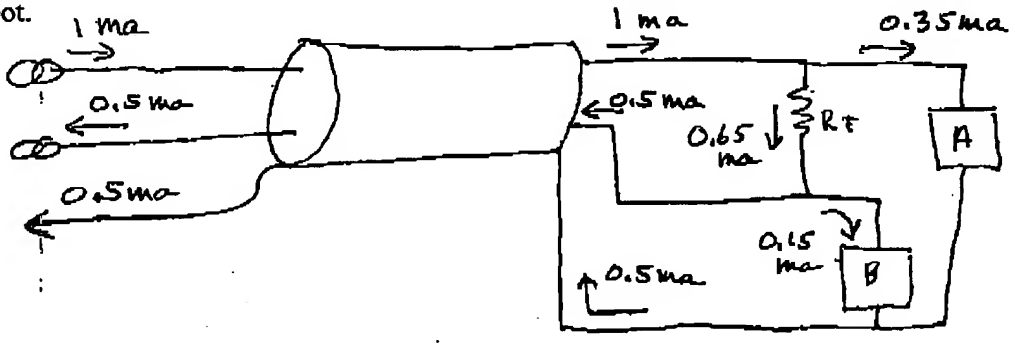
The present amendment makes minor changes to correct an oversight in claim 11 and to make claim 10 be consistent with the wording of claim 1.

With respect to the substance of the claims rejected over prior art, and with reference to a telephone conversation on 7/272005 with the Examiner, it was respectfully discussed that there is a subtle, but important, difference between the Talbot reference and the elements of the independent claims 1 and 10.

Independent claims 1 and 10 (with similar wording in method claim form) include the following limitations:

> *means for selectively driving unequal logic signal currents through the first and the second signal carrying conductors, respectively.*

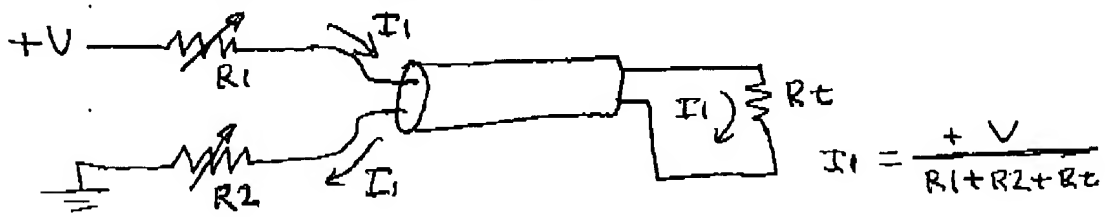
This limitation is illustrated in FIGS. 5 and 6 and the discussion on page 7, line 16 et seq. of the original application The following highlights the difference with respect to Talbot.



In the above schematic, a current source drives 1 ma into one conductor of a transmission line. A current source sinks 0.5 ma from the other conductor of the trans-

mission line. The line is terminated with its characteristic impedance resistor Rt, but there are current paths from the terminal end of each conductor. These current paths have a higher impedance than Rt. In this schematic there is 0.65 ma through Rt, 0.35 through path A, and 0.15 through path B. The 0.35 and the 0.15 form the 0.5 ma that is returned via the shield back to the sending end. The different between the 0.35 and the 0.15 ma is what is detected as the logic signal in the present invention. It is important to note that there is, simultaneously, a different current in each transmission line conductor.

Talbot's invention is illustrated in the following circuits:



Talbot's invention is illustrated in the schematic shown above. Resistors R1, Rt, and R2 determine I1 from ohm's law. But note that I1 travels into one conductor of the transmission line and the same I1 is returned through the second conductor. Talbot teaches that R1 and R2 are programmable and can be changed. Any change will change the value of I1, but that new I1 will enter one conductor of the transmission line and be returned through the second conductor.

This is quite different from the present invention with unequal currents through the two conductors of the transmission line and a necessary return current through the shield or ground. This limitation exists in all the claims of the present application.

For the above reason, it is respectfully requested that the Talbot reference be removed, and a notice of allowance be issued for the claims 1-18 in the present application. The Mitsuo reference does not suggest or anticipate the unequal currents in the transmission line.

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Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

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